

CRYOGENIC AND THERMAL ASPECTS OF THE SIRTf
WARM LAUNCH CONCEPT, U. E. Israelsson, R. D. Garcia, and T.
S. Luchik, Jet Propulsion Laboratory, California Institute of
Technology, Pasadena, CA 91109- A fundamentally new concept is
being explored for cryogenic operation of the Space Infrared
Telescope Facility (SIRTf). In this concept, the helium dewar and
instruments would be launched at helium temperatures while the
telescope and external radiation shields are at room temperature.
Once on-orbit, the telescope and the radiation shields would be
cooled radiatively to about 70K. Helium vapor is then used to bring
the telescope down to it's final operation temperature of 5.5K. We
present a design which meets SIRTf requirements and discuss it's
merit.

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